25 Fifth Avenue Narragansett, RI 02882

Narragansett Water Division-Point Judith



2005 Water Quality Report

The Quality of Your Drinking Water

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the water quality and services that we delivered to you in 2005. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

Our goal is to provide you with a safe and dependable supply of drinking water. Your water is safe to drink. However, in June 2005 we found Total Coliform Bacteria at a level higher than the EPA allows and therefore our water temporarily exceeded drinking water standards. Please see the "Understanding Our Water Quality Test Results" section on page two and the "Test Results" table on page three for additional information. As always, we remain committed to ensuring the quality of your water.

Narragansett Water does not hold regularly scheduled meetings; therefore, if you have any questions about this report or concerning your water utility, please contact Jeffrey Early, Water Superintendent, at (401) 789-1044. You may also call this number to obtain information about proposed or planned system improvement projects, such as main line replacements, new hydrant locations, etc. We want our valued customers to be informed about their water utility.

The Source of Your Drinking Water

We purchase all of our water from United Water Rhode Island (UWRI). The water we receive from UWRI comes from six gravel packed wells located in two well fields located off Tuckertown Road in South Kingstown. These wells can produce up to 7 million gallons of water per day. Both well fields draw water from the Mink Brook Aquifer. UWRI has initiated a very aggressive Wellhead Protection Program which has identified a well protection area around both of our well fields. UWRI is also conducing an inventory regarding land use within this wellhead area.

The RI Department of Health, in cooperation with other state and federal agencies, has assessed the threats to UWRI water supply sources. The assessment considered the intensity of development, the presence of businesses and facilities that use, store or generate potential contaminants, how easily contaminants may move through the soils in the Source Water Protection Area (SWPA), and the sampling history of the water.

Our monitoring program continues to assure that the water delivered to your home is safe to drink. The assessment found that the water source is at LOW RISK of contamination. This does NOT mean that the water cannot become contaminated. Protection efforts are necessary to assure continued water quality. The complete Source Water Assessment Report is available from UWRI or the Department of Health at (401) 222-6867.

Our constant goal is to provide you with a safe and dependable supply of drinking water

Water Conservation:

- The Town of Narragansett offers water conservation kits free of charge to any customer requesting one. Please contact the Water Division for further information about this service.
- Please read the back page of this report for lawn care and summer water conservation tips!

Narragansett Water Division-Point Judith

Phone: (401) 789—1044

Why Are There Contaminants in My Drinking Water?



Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

▲ In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Understanding Our Water Quality Test Results

The table on page 3 lists all of the drinking water contaminants that were detected through our water quality monitoring and testing. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from the January – December 2005 monitoring period. For those contaminants that are monitored less frequently, the most recent test results are listed.

Your water is safe to drink

Maximum Contaminant Levels (MCL's) are set at very stringent levels. The Maximum Contaminant Level Goal (MCLG) is set at a level where no health effects would be expected, and the MCL is set as close to that as possible, considering available technology and cost of treatment. A person would have to drink 2 liters of water every day, as recommended by health professionals, at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

In June 2005 we received a Total Coliform Violation when three (3) coliform bacteria test samples showed the presence of colifom bacteria. The standard is that no more than one (1) sample per month may do so. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. When coliform bacteria are found, special follow -up tests are done to determine if harmful bacteria are present in the water supply. Coliforms were found in more samples than allowed and this was a warning of potential problems. In order to correct the problem we disinfected our distribution system with chlorine, flushed the system and distributed public notification. All follow -up samples were negative for coliform bacteria.

The State of Rhode Island requires testing for other contaminants not regulated by the US EPA. The following contaminants were detected in United Water Rhode Island's water:

Dacthal: Dacthal was detected at a range of ND- 13.7 ppb. The likely source of contamination is runoff from herbicide use.

Metolachlor: Metolachlor was detected at a range of ND - 0.18 ppb. The likely source of contamination is runoff from herbicide use. **Sodium:** Sodium was detected at a range of 8.29 mg/L - 14 mg/L. Sodium is naturally occurring, or can be the result of runoff or the treatment process.

Test Results for United Water Rhode Island (UWRI)

The ranges listed in the table are results from UWRI's wells. Test results are from the 2005 testing year unless otherwise noted.

Radioactive Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Alpha Emitters (2002)	N	ND-6.61	pCi/L	0	15	Erosion of natural deposits
Combined Radium (2002)	N	ND—1.40	pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants	Violation Y/N	Levels Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Nitrate (as Nitrogen)	N	3.23 Range: 0.64 – 3.23	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Volatile Organic Contaminants	Violation Y/N	Levels Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Chlorine	N	Average 0.12 Range: 0.08 – 0.18	ppm	MRDLG 4	MRDL 4	Water additive used to control microbes
TTHM (Total Trihlomethanes)	N	Average: 14 Range: 13 - 15	ppb	0	80	By-product of drinking water chlorination

Distribution System Test Results for Narragansett—Point Judith

Microbiological Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (June 2005)	Y	3	Highest monthly # of positive samples	0	1 positive sample	Naturally present in the environment
Inorganic Contaminants	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Copper (2003)	N	0.41	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (2003)	N	ND	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

Units & Definitions

Non-Detects (ND) - Laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/L) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

Action Level (AL) - The concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system must follow. A violation will occur only if the supplier fails to take corrective action

Maximum Contaminant Level (MCL) -The MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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Narragansett Water Division-Point Judith

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Phone: (401) 789-1044

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2005 Water Quality Report

Important Information: We're pleased to inform you that your water is safe



Healthy Lawn Tips





3 Steps to a Chemical Free Lawn

Step 1: Mowing for vigorous root growth

Cost: \$0

Adjust your mower to cut at a height of 2-3 inches. This is the single most important factor in maintaining a thick and healthy lawn. Also, be sure to avoid shocking plants by removing no more than one-third of the grass blade. A sharp mower blade is also beneficial as it makes a clean cut that denies access to disease organisms. Tip: For free lawn fertilizer, leave grass clippings where they fall.

Step 2: Dethatching and aerating for improved movement of water, air and nutrients

Cost: Dethatch = \$40-\$60 Aerate = \$55-\$80

If your lawn has more than a ½ inch of thatch and/or soils that are compacted by heavy traffic, grass roots are having a tough time getting needed water, air, and nutrients. You can dethatch and/or aerate with equipment from a local tool rental retailer. If soil is compacted more than 2 inches deep, find a professional that has equipment that can penetrate 6-8 inches. Ensure continual aeration by protecting earthworms in your soil. <u>Tip</u>: When you dethatch or aerate, it's a perfect time to overseed for a thick, healthy lawn.

Step 3: Fertilizing and controlling pests for healthy soil

Cost: Soil Test = \$13 Organic/Slow Release Fertilizers = variable

A healthy soil biology is a lawn's best defense against pests and disease. This biology is also essential in the uptake of nutrients by grass plants. The use of chemical fertilizers and pesticides can harm soil, setting up a cycle of dependency where increasing product is needed to combat ever more lawn problems. If you've been using chemical

fertilizers and pesticides, you'll need to reestablish soil biology (see: Soilfoodweb.com). Earthworms are a good sign that your soil biology is in tact. Following are five guidelines to support beneficial soil organisms that will, in turn, support a healthy lawn and keep pest problems in check.

- Get a soil test to understand soil pH and fertility. That way you'll know exactly what nutrients your lawn needs. The Unive rsity of Massachusetts has a soil testing service that gives you results and soil amendment recommendations for optimal grass growth. Call them at (413) 545-2311 or see their web site: http://www.umass.edu/plsoils/soiltest/services1.htm
- · If your soil test shows that you need fertilizer, use organic or slow-release fertilizers since they have beneficial bacteria and fungi that bind to soil particles. This keeps nutrients where they are more easily available to plants. These fertilizers include cottonseed, bone or blood meals, fish emulsion, and composted grass clippings, vegetables/fruits, and manures.
- Monitor and accurately identify any pest problems that you feel you need to address. For help, contact URI's Cooperative Extension (1 800-448-1011).
- Try nontoxic pest control practices first. For example, you can use beneficial nematodes to attack grubs or apply milky spore powder as a preventative for
- Japanese beetle grub infestations. You can also now get less toxic products like soaps, horticultural oils, and plant-based insecticides to address many problems. Spot treat with pesticides only when absolutely necessary.

Tip: When using fertilizer, be sure to sweep all fertilizer off of driveways and walkways. The nitrogen of organic fertilizers can still adversely impact nearby waters if they are washed away with a hose or with the next rainfall.



Watering for a Healthy Lawn

How you water your lawn can significantly affect resistance to pests and disease. Here are 3 important tips to help improve the health of your lawn. Water no more than one-inch per week. Measure rainfall and then supplement (to make an inch of water) at the end of the week with a sprinkler if necessary. To measure this inch of water, you can use a rain gauge or a shallow can placed in the sprinkler area. Rain gauges are available at most local garden centers. Over watering can stress grass and lower resistance to insects and/or disease. It can also flush nitrogen through the soil and away from the grass that needs it.

Water only one time per week and be sure to water slowly and deeply to moisten the whole root zone. This will promote healthy root growth and limit

Water during the morning (before 9 a.m.) to prevent sun scalding and reduce evaporation. Be sure to avoid watering in the evening and on cloudy or hot and humid days when water that remains on grass can increase susceptibility to disease.

Also: For drought conditions, it's important to know what kind of grass(es) you have in your lawn. Provided you have good soil, Kentucky Bluegrass and Fescues can go

without water for an extended period of time. They will go dormant (brown, but alive), and will become green again once cooler weather returns. Once the grass goes dormant, it's best not to water.